A SUMMARY OF OBSERVATIONS ON THE BIRDS OF THE GULF COAST OF FLORIDA.

BY W. E. D. SCOTT.

The observations recorded in the following pages are based on work covering, in period of time, the entire winters of 1879-80, 1886-87, and 1887-88; the spring, summer and autumn of 1886, the spring and autumn of 1887, and the entire season of 1888 up to August 1, the date of this writing. All of these seasons have been spent at some point on the Gulf Coast of Florida south of Cedar Keys, and from that point to Key West is the area it is proposed to treat of. Reference will also be made to work done during January, February, and March. 1876, at Panassoftkee Lake in Sumpter County, and to several short trips inland to minor points.

Where information has been obtained through friends and fellow-workers in this region it will be noted as coming from such sources; and no information but such as seems absolutely reliable has been admitted into the pages that follow.

Colymbus auritus. Horned Grebe.—During the months of December and January, winter of 1887-88, this species was abundant in large flocks in the Gulf of Mexico, off the coast of the Counties of Hillsboro and Pasco. These flocks were most numerous from about a mile and a half to three miles off shore. Single birds and pairs often came closer to the land. I have no records of the species from any of the fresh water ponds, some of which are very close to the coast, where *Podilymbus fodiceps* is to be found very commonly.

Podilymbus podiceps. Pied-billed Grebe.—A common winter visitor, arriving early in the fall and remaining till late in March in numbers. I have notes of its occurrence in each of the months of June, July, and August, and though rare at this time of year, I think it will be found ultimately to breed in Hillsboro County. Most of the migratory birds assume full nuptual plumage before leaving for the north. The species is abundant in winter in both fresh and salt water at the several points I have visited throughout the State.

Urinator imber. Loon.—This species is common during December and January on the Gulf from Cedar Keys at least as far south as Tampa Bay. Though most of the birds seem to prefer the waters of the Gulf, yet I have many notes of their occurrence on the Anclote River, several miles above its mouth. The birds that I have examined from these localities are mostly young birds of the year, and I have never seen an individual from these points in full plumage.

Urinator lumme. Red-throated Loon.—Of not infrequent occurrence in the colder months, December and January, near the mouth of the Anclote River. I also took one near Clearwater Harbor in February, 1880.

Larus argentatus smithsonianus. American Herring Gull.—A rather common winter visitor on the Gulf Coast. I observed the species on May 21, 1886, just outside of Clearwater Harbor on the Gulf. (See Auk. Vol. IV, No. 4, October, 1887, p. 274.) Most of the individuals observed or taken have been in the gray plumage.

Mr. John W. Atkins of Key West writes me: "In the winter and early spring the Herring Gull is very plentiful in the harbor," referring to the harbor at Key West.

Larus delawarensis. RING-BILLED GULL.—A rather common winter visitor on the Gulf Coast, and I have noticed it in numbers near Clearwater Harbor as late as May 21, 1886. (See Auk, Vol. IV, No. 4, October, 1887, p. 274.) The birds observed have been about equally divided in regard to immature and full plumage.

Larus atricilla. Laughing Gull.—An abundant fall, winter, and spring bird on the Gulf Coast, and breeds, but so far as I am aware, not abundantly. See notes made in May at Charlotte Harbor, Auk, Vol. IV, No. 4, October, 1887, pp. 274, 278, 279. Mr. Atkins of Key West tells me that this Gull is a common resident and breeds both at Key West and in the vicinity of Punta Rassa. From the same source I learn that this species breeds at the Dry Tortugas.

Larus philadelphia. Bonaparte's Gull.—This species is not common on the Gulf Coast of Florida so far as I am aware. I took a single individual at Panassoffkee Lake, in Sumpter County, in the winter of 1875-76, and found a few at the mouth of the Withlacooche River in December and January, 1879-80. I have no record of it in the immediate vicinity of Tarpon Springs, and the only record south of that point is of a single bird, apparently immature, taken at John's Pass, Hillsboro County, December 17, 1886.

Gelochelidon nilotica. Gull-billed Tern.—Apparently rare on the portions of the Gulf Coast visited. The only record that I am aware of is that of a male in winter plumage taken at John's Pass (see Auk, Vol. IV, No. 2, April, 1887, p. 133). Also see 'Mammals and Winter Birds of East Florida,' J. A. Allen, Bull. Mus. Comp. Zoöl., Vol. II, p. 366, April, 871.

Sterna maxima. ROYAL TERN.—A resident species, more abundant in winter, and breeds commonly. On the low sand keys at the mouth of Tampa Bay the breeding season begins about the middle of May, and is at its highest three weeks later.

Sterna sandvicensis acuflavida. CABOT'S TERN.—A migrant, and very abundant as far north as Clear Water. The birds are not to be found as far north as Tampa Bay in the winter, and if they occur on this coast at all at that season it is much to the south of Charlotte Harbor. I found the first migrating north at Gasparilla Key early in May, and I have

reason to believe that they arrive at this point about May 1 to 5, becoming common in a few days.

At John's Pass I found them in great numbers about June 1, 1886. The percentage of adult birds to those in immature plumage at this time of the year is quite remarkable. On June 3, 1886, at John's Pass I took a scries of fifty-nine of these birds and saw many hundreds more of them. Of the fifty-nine only six were in full plumage, and though all of the others were at least a year old, not a few of them appeared from dissection as if they would not have bred till at least another season. They breed in large numbers on the sand beach near the point above indicated in June, and are still abundant in the vicinity till about the last of September when they begin to disappear. On September 20, 1886, I secured an additional series of the species at the point in question. The birds had by that time all assumed winter plumage except the young birds of the year. These were in seven cases still in the first plumage, and not quite fully grown, indicating that probably more than one brood is raised, and showing how late in the summer the last broods are hatched out.

Since writing the above, Mr. Atkins of Key West tells me that Cabot's Tern is quite common in Key West Harbor in winter.

Sterna forsteri. Forsteri's Tern.—A rather common winter resident (see Bull. Nutt. Orn. Club, Vol. VI. No. 1, January, 1886. p. 21), and the species was observed by me at Casey's Pass as late as May 28, 1886, still in winter plumage. (See Auk. Vol. IV. No. 4. Oct., 1886, pp. 274, 278.) Later, June 3, of the same year, I found the species abundant at John's Pass and still in flocks, many of the birds being in winter plumage. I am inclined to think that the species will be found to breed in small numbers near this locality on the Gulf Coast. Mr. Atkins took the species commonly at Punta Rassa on July 18, 1886. Mr. Atkins also finds this a common species at Key West in the winter.

Sterna hirundo. Common Tern's—The Common Tern is an abundant bird during the spring, but I have no records of its occurrence in the winter months north of Key West. During May and the early part of June the birds were abundant in flocks from Boca Grande, the main inlet to Charlotte Harbor, to John's Pass. The majority of the birds were in the plumage of the first year, and had the peculiur marking of that phase of plumage, a prominent black or dusky band just back of the bones of the forearm. About one bird in ten was in full plumage or assuming it, and a few birds taken were moulting. Mr. Atkins of Key West has found this species not uncommon at Punta Rassa in midsummer (July 8, 1886), and it seems probable that it breeds at some point on the Gulf Coast.

Sterna dougalli. Roseate Tern.—The only record of the species that I have is a male bird, adult, No. 4860, taken at John's Pass September 24, 1886. The bird is in worn plumage, and had not completed the fall moult.

Sterna antillarum. LEAST TERN.—A common migrant, and breeds in numbers at almost every point on the coast that I have visited. The

birds arrive at Tarpon Springs early in April, many pass on north, and the breeding season is at its height late in May. They remain till late in September commonly, and a few are to be seen until about November 1. I only noticed a single bird among many hundreds of this species during the month of May, 1886, that still retained the plumage of the first year.

Referring to this species on the Island of Key West, Mr. Atkins says: "I have found the Least Terns breeding on the beach of a partially dried-up pond in the woods."

Hydrochelidon nigra surinamensis. BLACK TERN.—This species was abundant in large flocks at John's Pass in the early part of June, 1886, and equally common when I visited this point in September (12-24) of the same year. About thirty per cent of the birds observed in the spring were in adult breeding plumage. Mr. Atkins obtained the species in midsummer at Punta Rassa commonly.

Rynchops nigra. BLACK SKIMMER. — An abundant migrant and common resident at points visited on the Gulf Coast. Many breed at suitable localities.

In concluding my remarks on the Gulls and Terns of the Gulf Coast, I wish to present to the reader some facts that have only recently been fully authenticated by me, and which of course contradict in a certain sense some of the foregoing remarks as to the points at which certain of the species enumerated breed. Having heard of the wholesale destruction of the Gulls and Terns on their breeding grounds at the mouth of Tampa Bay on Passage Key, and on the low sand islands and bars off Pass Agrille, I determined to look into the matter. I was familiar with both breeding places where only a few years ago countless hosts of Terns, Gulls, and Black Skimmers nested.

On July 2 of the present year I sent Mr. W. S. Dickinson and Mr. Parkes to carefully look over these breeding grounds and to report to me in detail. For this work Mr. Dickinson was well fitted and capable, having had very considerable experience, working with me and under my direction for an entire year.

The two gentlemen were gone six days and though the results of the expedition were negative in one sense, they were conclusive and positive in another.

Not a Tern of any kind was found breeding or with young at any of the points in question. The only Terns seen were about fifty Sterna maxima, a number of S. antillarum, twelve or fifteen Forster's or Common Terns that were so wild that it was impossible to identify them, and a flock of some three hundred H. nigra surinamensis. About fifty Black Skimmers were breeding and had fresh eggs on the beach near Pass Agrille, and a dozen were found nesting at Passage Key.

This was all that was left of a breeding colony that had once numbered its tens of thousands, and the evidence tells its own story.

Not a single Cabot's Tern was seen where they had once bred in great numbers, and the birds that were seen were so wild and shy as to make identification a very difficult task. These results have been brought about by the persecutions of plume hunters, for there had been great demand for the Terns for hats, and by the depredations of egg hunters from Manatee, who find this a point from which in years gone by they have been able to supply the markets of the towns near by with eggs for food.

The only Gulls that were noted on this expedition were a few Laughing Gulls.

These breeding grounds are all easily accessible from Point Pinullas and Prof. H. A. Smeltz, a resident till recently of that locality, assures me that he has known the plume hunters of that region to ship to the New York dealers seven barrels of plumes and flat skins in a single week during the breeding season of the Herons, Gulls, and Terns; and I know personally of a contract made by a New York house with two men of that locality for 30,000 Terns' skins to be delivered during a single season.

The methods of the egg hunters are of too great interest to be passed over. The beaches where Terns' and Gulls' eggs were laid in great quantities, were carefully scraped with boards used as brushes. All the fresh eggs were selected after being swept into the water and those that had been incubated allowed to drift away with the tide. But the work was really done so that the egg robber might the next day get all the eggs that had been laid in the interval.

Anhinga anhinga. Anhinga.—A common resident, breeding from late in March till the middle of July in the vicinity of Tarpon Springs. The breeding season is, however, at its height in this locality about the last week in April. The birds do not seem so gregarious at this or other seasons of the year as do the Cormorants, and it is unusual to find more than a dozen pairs at a 'rookery,' from two to four pairs being the ordinary contingent. Almost every fresh water pond has its pair or more, and on the larger lakes and streams they are plentiful. I have yet to find the species breeding in a salt water rookery, or to see one in the pure salt water of the Gulf, though they are occasional on the brackish bayous that connect with the Gulf.

Phalacrocorax dilophus floridanus. FLORIDA CORMORANT.—An abundant and conspicuous species at all seasons near the coast and on the larger sheets of fresh water. Breeds in great colonies at suitable points near both fresh and salt water, beginning to lay in the vicinity of Tarpon Springs late in March and early in April. Generally two or three eggs are laid, and two broods are reared.

Pelecanus erythrorhynchos. American White Pelican.—Though observed in flocks of varying size throughout the year in the vicinity of salt water, I have no records of the species breeding at any point visited. The breeding, if it occurs in the region in question, seems unknown to any of the native hunters I have talked to.

Pelecanus fuscus. Brown Pelican.—A common resident at most points on the Gulf, and breeds in colonies, generally of great size, on the mangrove islands in April, May, and June, according to the many notes accumulated.

Fregata aquila. Man-o'-war Bird.—A resident species, but much more abundant during the warmer months of the year. They do not, so far as I am aware, breed at any point north of Charlotte Harbor, nor at that point.

Wherever there is a salt water rookery, particularly of Pelicans or Cormorants, these birds congregate in great numbers during the time the young birds are being reared, and at this season act much as do the parasitic Gulls, stealing food from young and old birds. I have frequently seen them preying on Gulls and Terns when fishing, just as the Jaegers do.

Merganser serrator. Red-breasted Merganser.—A common winter resident at least as far south as the mouth of the Anclote River. Here they arrive about the first of November and remain till late in February, and a few are to be seen in March. They frequent almost exclusively regions where oyster bars abound, especially such bars as are left bare or nearly so by each receding tide.

Lophodytes cucullatus. Hooded Merganser.—A common winter resident, and some breed. Unlike *M. serrator*, these birds seem to prefer the ponds of fresh water near the coast, and I have never seen one in the Gulf, though back in the country a mile from the salt water they are common.

Anas boschas. MALLARD.—The Mallard does not seem as abundant at the several points visited on the Gulf Coast as it is on the East Coast, according to authorities. In the region about Tarpon Springs, though not rare, it is not nearly so abundant as some of its congeners. Here it is a regular winter visitor.

Anas fulvigula. FLORIDA DUCK.—Resident, but not at all common, in the region about Tarpon Springs. At points on old Tampa Bay, I am informed by Mr. Stuart of Tampa (who is well acquainted with the bird), it is rather common and breeds.

I met with the bird once only in the Charlotte Harbor region, on May 21, 1886, when a single pair were seen, and so close at hand that there could be no mistake as to their identity.

Anas americana. Baldpate.—In December, 1879, I took at the mouth of the Withlacooche River an adult male of this species in full plumage. This is the only record I have of its occurrence on the West Coast, where it is apparently rare.

Anas carolinensis. Green-winged Teal.—A not very common winter visitor in Hillsboro County. Frequents only fresh water in the vicinity of Tarpon Springs. At Panassoff kee Lake in the winter of 1875-76 this bird was very abundant.

Anas discors. Blue-WINGED TEAL.—Rather more common in fall, winter and spring than the last; this in the region about Tarpon Springs, but at Panassoff kee Lake the reverse was true.

Dafila acuta. PINTAIL.—A not uncommon winter visitor, at least as far south as Tampa Bay. I have records of its occurrence each winter that I have spent in the vicinity of Tarpon Springs, and it was a common Duck

in the region about Panassoffkee Lake, Sumpter County, during a visit I paid to that locality in the winter of 1875-76.

Aix sponsa. Wood Duck.—A common resident at all points visited, and breeds in numbers, but is apparently more common in the colder months of the year.

Aythya affinis. Lesser Scaup Duck.—An abundant winter visitor in the regions near the coast, at least as far south as Charlotte Harbor. The birds begin to arrive early in November about Tarpon Springs, are soon common, and remain in numbers till about May 1, after which small flocks are not uncommon till about the 20th of that month, when all seem to have departed.

On May 5, 1886, I noted three Ducks which I now believe to have been this species, though then recorded as Aythya marila nearctica, near the mouth of the Myiakka River at the head of Charlotte Harbor. (See Auk, Vol. IV, No. 2, April, 1887, p. 141.)

On May 9, 1886, at a point only six miles north of Punta Rassa I saw two large flocks, not less than two hundred in each, of this species, and killed birds for identification from each flock.

This was also the most abundant species at Panassoff kee Lake, Sumpter County, during the winter of 1875-76.

Aythya collaris. RING-NECKED DUCK.—Rare on the Gulf Coast about Tarpon Springs where I have but a single record of its occurrence. At Panassoffkee Lake in the winter of 1875-76 it was not at all uncommon, and was associated in flocks with the foregoing species.

Glaucionetta clangula americana. American Golden-Eye.—On January 9, 1888, while in a boat fishing at the mouth of the Anclote River, a single individual of this species flew by within twenty yards, making the identity certain. It was a male bird in high plumage.

Charitonetta albeola. Buffle-head.—I have a number of records of the occurrence of this species on the Gulf Coast during the winter months, but it is even at this season a comparatively rare bird, and more frequently represented by immature individuals.

Erismatura rubida. RUDDY DUCK.—Of rather frequent occurrence in the vicinity of Tarpon Springs in winter months.

Chen hyperborea nivalis. Greater Snow Goose.—The record already published in 'The Auk,' Vol. V, No. 2, April, 1888, p. 183, is the only authentic occurrence that has come to my knowledge to date. I am indebted to Mr. J. W. Atkins, of Key West, for the information then published.

[To be continued.]